REMARKS

In the Office Action dated August 2, 2001, claims 1-4, 6, 9, 10, 13 and 14 were rejected under 35 U.S.C. §102(a) as being anticipated by any of Tamura, Nygren, Tojo et al and Ueyama '792. Claim 5 was rejected under 35 U.S.C. §102(a) as being anticipated by Tojo et al or Ueyama '792. Claim 7 was rejected under 35 U.S.C. §102(a) as being anticipated by Tojo et al. Claim 8 was rejected under 35 U.S.C. §103(a) as being unpatentable over Tamura, Nygren or Tojo et al in view of Mori. Claims 11, 12 and 15 were rejected under 35 U.S.C. §103(a) as being unpatentable over Tamura, Nygren or Tojo et al.

By the present Amendment, the subject matter of claim 7 has been embodied in independent claim 1 and claim 1 has been editorially amended as well. Claim 7 has been canceled, and since claim 6 would be contradictory to the subject matter now embodied in amending claim 1, claim 6 has been canceled. Similar changes have been made in independent method claim 13.

The only reference that was applied against the subject matter of claim 7 was the Tojo et al reference. In view of the amendments to independent claims 1 and 13, the Tojo et al reference is now the only reference allegedly applicable to that subject matter, and the other rejections therefore are moot. The original rejection of claim 7 as being anticipated by Tojo et al under 35 U.S.C. §102(a) is respectfully traversed for the following reasons.

The subject matter disclosed and claimed in the present application is an electromechanical motor, i.e., its intended purpose is to generate torque which is then available for driving some other component externally of the motor. In any motor, in order to make the torque available externally of the motor, it is necessary to provide

some rotatable element which is available to transfer the torque from the motor to a driven component. In the subject matter of claims 1 and 13 of the present application, this element is the shaft which is in rolling line contact with the drive ring. The device disclosed in the Tojo et al reference, by contrast, is a scroll compressor, i.e., it is basically a pump with a very small flow rate. In all embodiments, the scroll compressor operates by rotating (called "orbiting" in the Tojo et al patent) a circular shaft inside a *stationary* frame 4. The basic operation of all of the embodiments, making clear that the frame 4 is stationary, is described in the paragraph bridging columns 3 and 4 of the Tojo et al patent, which specifically refers to the frame 4 as being a stationary member in column 4, lines 8-9.

In the Office Action, the Examiner cited the embodiment shown in Figures 13a through 13d of Tojo et al as allegedly anticipating the subject matter of claim 7. Dependent claim 7, however, embody the subject matter of claim 1 therein, and claim 1 as originally filed stated that the shaft is *rotated* by the circulatory displacement motion of the drive ring. In the embodiment shown in Figures 13a through 13d of Tojo et al, if the element 3 is considered to be the drive ring, and the element 4 is allegedly considered to be the shaft which is located outside of the drive ring, this structure does not correspond to the structure of claim 7 as originally filed, because the element 4 in the Tojo et al reference is stationary, and in fact must be stationary in order for the Tojo et al device to operate as intended. If the element 4 were not stationary in all of the embodiments disclosed in Tojo et al, it would merely wobble as the internal element orbited therein, and thus no pumping action would be produced. In order for a pumping action to be produced in order to generate fluid flow in the Tojo et al reference, it is absolutely necessary for the frame 4 to be stationary.

Therefore, the Tojo et al reference did not anticipate claim 7 as originally filed, and modifying the Tojo et al reference in order to allegedly arrive at a motor as disclosed and claimed in the present application would destroy the intended operation of the Tojo et al reference.

In addition to embodying the subject matter of claim 7 in claim 1, claim 1 has been amended, consistent with this subject matter, to state that the drive elements are stationarily mounted. This is important to the intended operation of the subject matter of claim 1 (as well as claim 13) in view of the fact that an electromechanical motor is being claimed. This is also contrary to the intended operation of the Tojo et al structure.

Although a rejection under 35 U.S.C. §103(a) was not made based on a combination of one or more of the other primary references together with the Tojo et al reference, Applicants submit it would not have been obvious to a person of ordinary skill in the art to modify one of the other primary references (Tamura, Nygren or Ueyama) in accordance with the teachings of Tojo et al, to provide a drive ring disposed inside of a shaft which is rotated by rolling line contact between the drive ring and the shaft. This is because in all of the embodiments in the primary references, the drive ring is disposed at the exterior of the shaft, and Tojo et al, as discussed above, does not merely generically teach placing the drive ring inside of the shaft, but instead teaches, in a pump, orbiting a circular element inside a *stationary* frame. There is no reference which discloses or suggests the combination of a drive ring rotating inside a rotatable shaft in a motor, as disclosed and claimed in the present application.

Lastly, Applicants note that the Office Action summary stated that the certified copy of the Priority Document had not been received. The certified copy of the Priority Document was sent to the Patent and Trademark Office with a Certificate of Mailing

dated February 5, 2001, and was received at the Patent and Trademark Office on February 8, 2001. A copy of the stamped return postcard indicating receipt of the certified copy of the Priority Document in the Patent and Trademark Office on February 8, 2001 is attached hereto. The Examiner is requested to again review the Patent and Trademark Office file to confirm whether the Priority Document is contained therein.

All claims of the application are therefore submitted to be in condition for allowance, and early reconsideration of the application is respectfully requested.

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

Claim 1 has been amended as follows:

1. (Amended) An electromechanical motor comprising:

two stationarily mounted electromechanical drive elements respectively producing linear displacements;

a drive ring having an interior in mechanical connection with said drive elements for causing said drive ring to execute a circulatory displacement motion by a combination of said linear displacements; and

a shaft in rolling line contact with an exterior of said drive ring, said shaft being rotated by said circulatory displacement motion of said drive ring.

Claim 13 has been amended as follows:

13. (Amended) A method for operating an electromechanical drive, comprising the steps of:

stationarily mounting two electromechanical drive elements;

placing a drive ring in mechanical connection with said two electromechanical drive elements;

producing respective linear displacements with said drive elements for causing said drive ring to execute a circulatory displacement motion by a combination of said linear displacements; and

placing a shaft in rolling line contact with an exterior of said drive ring and rotating said shaft with said circulatory displacement motion of said drive ring.

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Submission of Signed Declaration-Executed
Declaration - Copy of Notice - Fee $130.00
Sub.. of Priority Document-Spec.

Gottleib et al
APPLICANT

TYPE OF DOCUMENT(S)

February 5, 2001
MAILING DATE

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